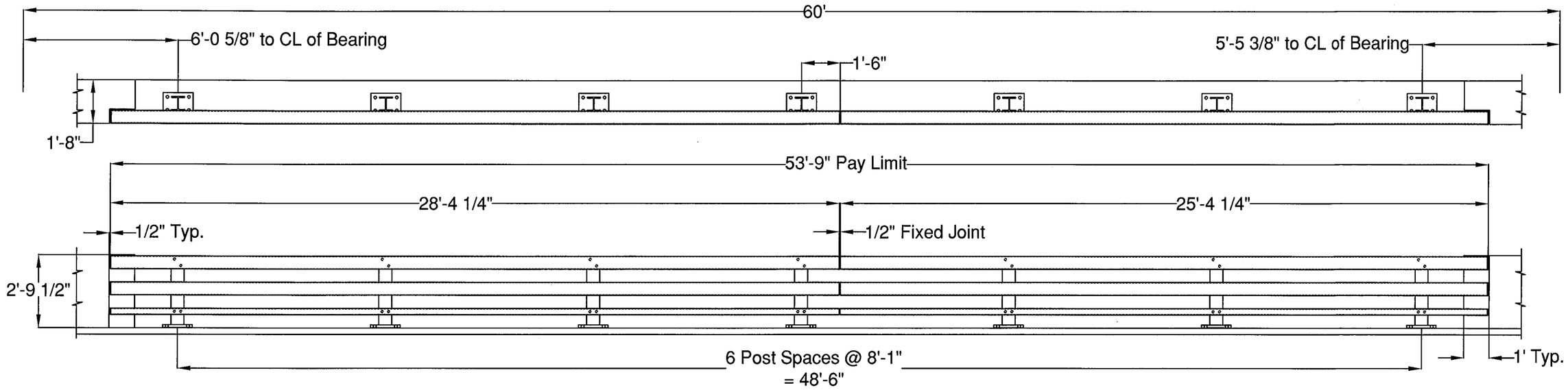
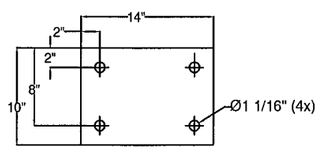
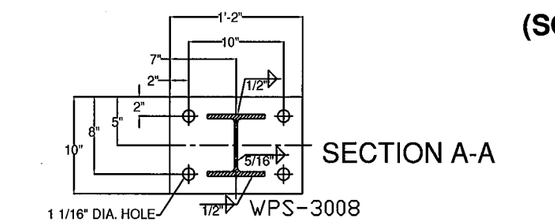
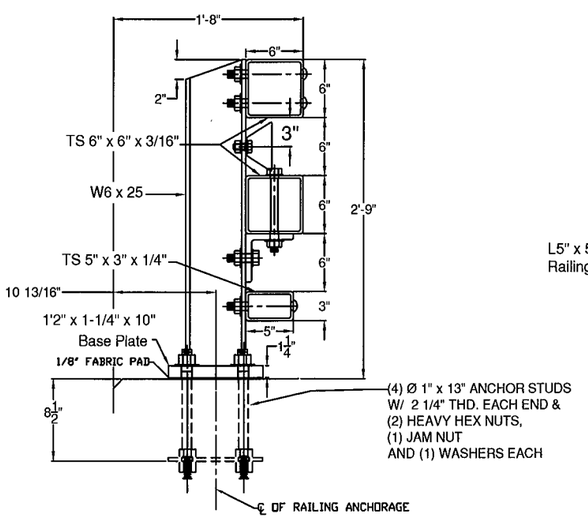


NORTH RAILING FACING NORTH
(SOUTH RAILING SIMILAR)

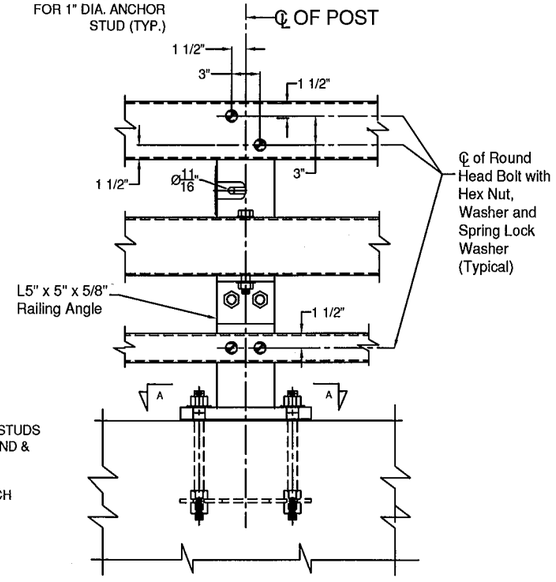


1/8" FABRIC PAD





SECTION



ELEVATION

STEEL BRIDGE RAILING

BILL OF MATERIAL		
QTY	DESCRIPTION	ASTM DESIGNATION
14	THREE RAIL POST @ 2'-9" OA	A572 Gr. 50
2	3" X 5" X 1/4" RAIL @ 28'4-1/4" w/Capped End	A500 Gr. B
2	3" X 5" X 1/4" RAIL @ 25'4-1/4" w/Capped End	A500 Gr. B
4	6" X 6" X 3/16" RAIL @ 28'4-1/4" w/Capped End	A500 Gr. B
4	6" X 6" X 3/16" RAIL @ 25'4-1/4" w/Capped End	A500 Gr. B
2	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
4	5" X 5" X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
14	3/8" X 10" X 14" ANCHOR PLATES	A572 Gr. 50
14	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
56	Ø 1" X 13" ANCHOR STUDS, W/ 2 1/4" THD. EACH END	A449 Gr. 1
112	Ø 1" HEAVY HEX NUTS & FLAT WASHERS	A563 (HD) & F436
56	Ø 1" HEX JAM NUTS	A563
56	Ø 7/8" X 8" ROUND HEAD BOLT, NUT, SQ. WASHER, L.W.	A449, A563 (HD), ASME B18.21.1
14	Ø 3/4" X 8" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563 (HD), F436, & ASME B18.21.1
28	Ø 3/4" X 2-3/4" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563 (HD), F436, & ASME B18.21.1
16	Ø 3/4" X 7-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563 (HD), & F436
8	Ø 3/4" X 4-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563 (HD), & F436
14	L5" X 5" X 5/8" RAILING ANGLE @ 6 1/8"	A572 Gr. 50
0	DELINEATORS	(SUPPLIED BY CUSTOMER)

ITEM #: 525.335 GEN CONTR: F.R. LAFAYETTE, P.O. 27767

SHEET 1 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

PROJECT: PLYMOUTH ER BRS 0149 (5) VT 100A (MAJOR COLLECTOR) BRIDGE NO. 8
TOWN OF PLYMOUTH, WINDSOR COUNTY, VERMONT

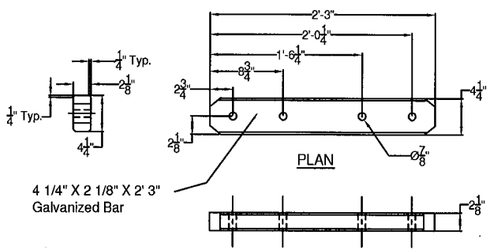
R	NO.	DATE	DESCRIPTION	BY	R	NO.	DATE	DESCRIPTION	BY
E				E.P.	E				E.P.
V				E.P.	V				

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

CERTIFIED FABRICATOR

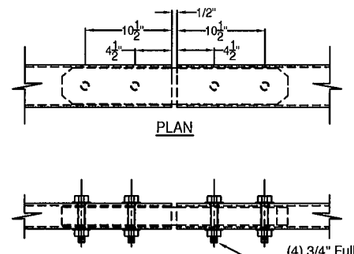
DRAWN	D.L.	12/13/12
CHECKED	E.P.	12/13/12
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L. PLYMOUTH 27767	

SPLICE BAR - FIXED



PLAN

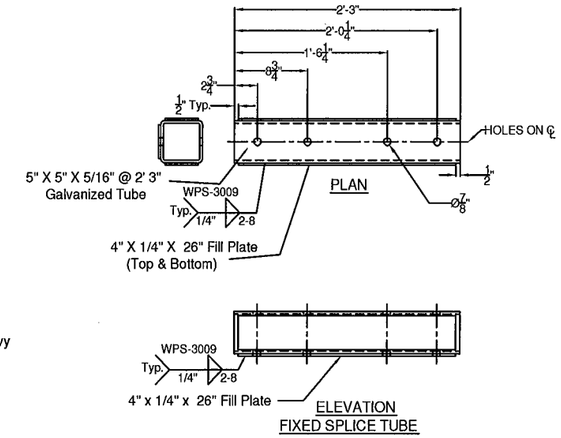
ELEVATION
FIXED BAR SPLICE



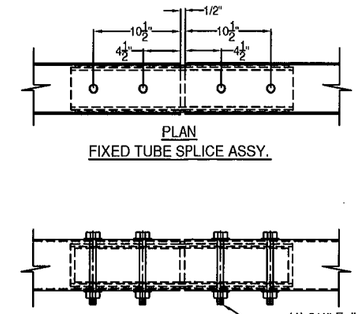
PLAN

ELEVATION
FIXED BAR SPLICE ASSY.

(4) 3/4" Fully Threaded Bolts. 4 1/2" Long (ASTM A325, TYPE 1) 2 Washers and a Heavy Hex Nut on each Bolt. Nut to be Finger Tight and the First Thread below the nut to be damaged A.O.B.E.. 4 Bolts at Each Splice.



ELEVATION
FIXED SPLICE TUBE

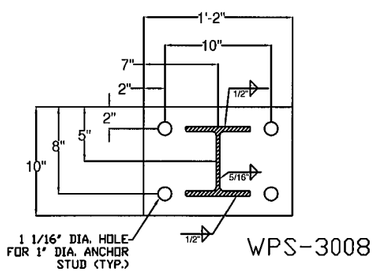


PLAN
FIXED TUBE SPLICE ASSY.

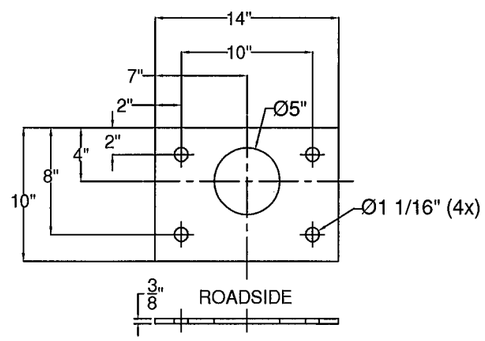
ELEVATION
FIXED TUBE SPLICE ASSY.

(4) 3/4" Fully Threaded Bolts. 7 1/2" Long (ASTM A325, TYPE 1) 2 Washers and a Heavy Hex Nut on each Bolt. Nut to be Finger Tight and the First Thread below the nut to be damaged A.O.B.E.. 4 Bolts at Each Splice.

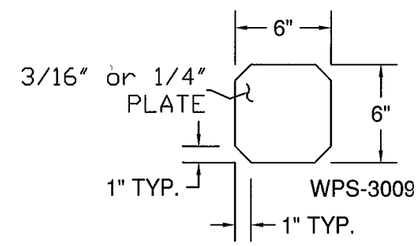
SPLICE TUBE - FIXED



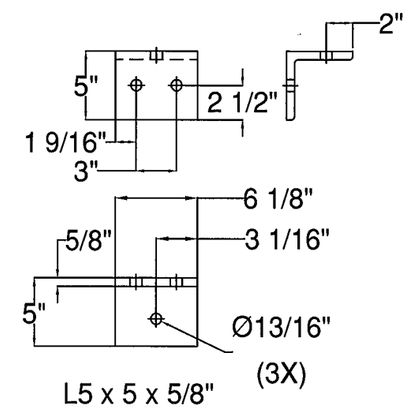
WPS-3008



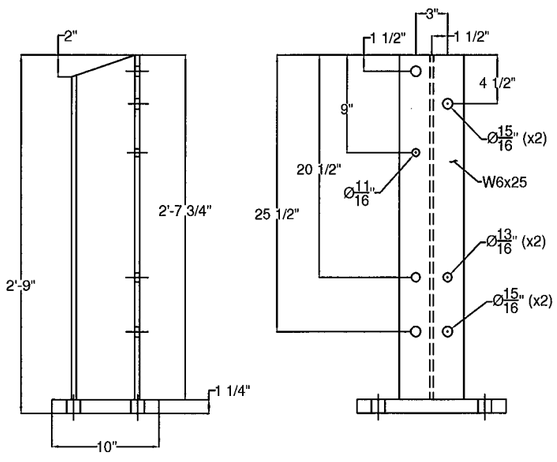
ANCHOR PLATE



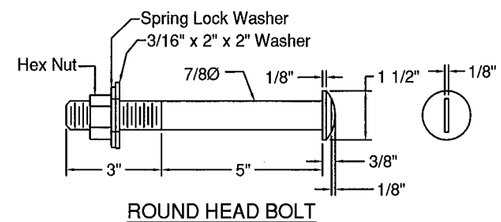
WELDED END
CAP DETAIL



L5 x 5 x 5/8"
RAILING ANGLE



BRIDGE POST DETAIL



ROUND HEAD BOLT

GENERAL NOTES:

1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
2) PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
4) RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPER STRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4"@ 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
5) RETROREFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE A .063" ALUMINUM BACKING WHITE OR YELLOW REFLECTOR. WHITE IS TO BE INSTALLED ON THE DRIVERS RIGHT. FOR ONE WAY BRIDGES , YELLOW IS TO BE INSTALLED ON THE DRIVERS LEFT.
6) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
7) THE MINIMUM DISTANCE FROM THE POST TO AN EXPANSION JOINT SHALL BE DETERMINED BY THE MINIMUM EDGE DISTANCE OF 5" FROM ANY ANCHOR STUD TO THE END OF THE SLAB, OR THE EXPANSION JOINT RECESS POUR, IF ONE IS USED.
8) ALL POST SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POST IS 8' 3".
9) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT.
10) STD. SPLICE HOLES ONLY IN BRIDGE RAIL TUBES. REST TO BE DRILLED BY CUSTOMER. FIELD DRILLED HOLES TO BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
11) THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

ITEM #: 525.335 GEN CONTR: F.R. LAFAYETTE, P.O. 27767

SHEET 2 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

PROJECT: PLYMOUTH ER BRS 0149 (5) VT 100A (MAJOR COLLECTOR) BRIDGE NO. 8
TOWN OF PLYMOUTH, WINDSOR COUNTY, VERMONT

REV	NO.	DATE	DESCRIPTION	BY	REV	NO.	DATE	DESCRIPTION	BY

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

AISC CERTIFIED FABRICATOR

DRAWN	D.L.	12/13/12
CHECKED	E.P.	12/13/12
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L. PLYMOUTH 27767	